

The application of the results obtained in experiments on the hyperplasia of dogs' thyroids to the treatment of exophthalmic goître (Graves' disease). By EDWARD MELLANBY and MAY MELLANBY. (Preliminary Communication.)

We were impressed by the similarity in histological appearance between some of the hyperplastic thyroids of the dogs, whose production is described in another communication, and those of patients suffering from exophthalmic goître. We decided, therefore, to try the effect of dieting patients suffering from this disease along the suggested lines.

It was first observed that, when butter was added to a good normal diet, all the symptoms were intensified. The metabolism was increased to such an extent that the patient lost weight, and the tachycardia and nervous condition were more pronounced. The diet was then arranged so that it contained only a small amount of fat and to this was added 15 c.c. of cod liver oil per diem. The foodstuffs eaten were separated milk powder, porridge, bread, green vegetables, eggs and lean meat. Although this diet on combustion in the body supplied much less energy, the metabolism of the patients was reduced out of all proportion and they now gained in weight. In some cases the gain in weight was astonishing, as for instance:

G. gained 13 lbs in 15 days.

T. „ 9 „ 14 „

M. „ $6\frac{1}{2}$ „ 14 „

B. „ $4\frac{1}{2}$ „ 20 „

During this period of reduced metabolism, the other symptoms of Graves' disease were greatly mitigated, the tachycardia and restlessness being especially modified in their intensity. Working on the assumption that the action of cod liver oil in the case of the puppies' thyroids was wholly or in part due to its iodine content, 6 to 9 grains of potassium iodine were in some cases given to the patients.

After a period of this treatment resulting in reduced metabolism, the weight of the patient became stationary or fell slightly.

The results so far obtained suggest that the same physiological laws apply in the production of certain thyroid abnormalities alike in dogs and human beings and that there is good hope of a curative treatment of exophthalmic goitre being developed by the direct application of results obtained in experimental animals along these lines.

